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10/782,242	02/18/2004	Bernd J. Mathiske	30014200-2045	5223
58328 7590 06/21/2010 MARSH FISCHMANN & BREYFOGLE LLP 8055 E. Tufts Avenue, Suite 450 Denver, CO 80237				
EXAMINER				
ZHE, MENG YAO				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/782,242

Applicant(s)

MATHISKE ET AL.

Examiner

MENGYAO ZHE

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-13, 20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-13, 20, and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-6, 8-13, 20, and 22 are presented for examination.

#### ***Claim Rejections - 35 USC § 112***

2. Claims 1-6, 8-13, 20, and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

More specifically, as per claim 1, although the specification teaches concurrent tasks and how they operate, the specification does not indicate how concurrent determination and manipulation occur (lines 6, 10). The rest of the claims have the same deficiencies.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 12-13, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moor et al., Patent No. 7,171,663 (hereafter Moor) in view of Nitz et al., Patent No. 6,370,590 (hereafter Nitz) further in view of Kuck et al., Patent No. 7,325,233 (hereafter Kuck).

4. Moor and Nitz were cited in the previous office actions.

5. As per claims 1 and 20, Moor teaches substantially a method of processing platform-specific events by a virtual machine (Fig 1, unit 140) that operates on a first platform, wherein said virtual machine concurrently supports a first and a second task, said method comprising:

receiving, by the virtual machine, a plurality of platform-specific events which are associated with the first platform, wherein each said platform-specific event is an external event initiated externally to said virtual machine (Fig 1, units 115, 120, 125; Column 5, lines 5-7; Column 1, lines 10-20);

one of said first and second tasks responds to the platform-specific event, wherein said first and second tasks are concurrently supported by said virtual machine (Column 4, lines 43-67);

manipulating each said platform-specific events received and converting it into another event to comply with the needs of the responding tasks, thereby representing

each said platform-specific event in a form that is accessible by said selected task (Column 5, lines 8-10; Column 7, lines 9-17; Column 8, lines 14-20)

processing each of said platform-specific event concurrently (Column 6, lines 34-35, lines 50-53).

**Moor** does not teach a centralized entity that makes the decision of which task should process the events—specifically, **Moor** does not teach concurrently determining which of said first and second tasks should receive each of said platform-specific event and simultaneously manipulating each of said the platform-specific events to comply with a data structure format supported by said selected task, thereby to represent said platform specific event in a form that is accessible by said selected task. Furthermore, **Moor** does not teach that the events are received by the VM simultaneously.

However, **Nitz** teaches selecting one of said first and second tasks as a selected task for receiving said platform-specific event (Column 7, lines 22-39) and manipulating the platform-specific event by modifying its data structure to be compliant with a data structure format supported by said selected task, thereby to represent said platform specific event in a form that is accessible by said selected task (Abstract; Column 7, lines 40-55) for the purpose of bridging communication between applications each using different event formats.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to combine the inventions of **Moor**, where the task itself in the virtual machine has to respond to the platform-specific event, with using the event

control device in the virtual machine so that the event control device may select which task is to process the event and manipulating the platform-specific event by modifying its data structure to be compliant with a data structure format supported by said selected task, thereby to represent said platform specific event in a form that is accessible by said selected task, as taught by Nitz, because it allows for the selection of the correct task to receive an event that it is intended for and bridging communication between entities each using different event formats.

Nitz does not specifically teach concurrently determining which tasks should receive each of the events and simultaneously manipulating the events.

However, since multi-threading is commonly used as a way to achieve concurrent processing for the purpose of speed optimization at the time of the applicant's invention, as also shown by Moore (Column 4, lines 15-40), it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Nitz with providing multiple threads, each capable of the selection and the manipulation steps, such that the selection and the manipulation may be achieved concurrently.

Furthermore, Kuck teaches that a VM may receive multiple events simultaneously for the purpose of achieving parallel and faster processing (Column 7, lines 18-29).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to modify the teachings of Moor in view of Nitz with VM having

the ability to receive multiple events simultaneously, as taught by Kuck, because it allows for parallel and faster processing.

6. As per claim 12, Moor in view of Nitz further in view of Kuck teaches everything as applied to claim 1 above. Kuck further teaches a platform-specific event-repository for said selected task, wherein said platform specific repository provides event storage prior to processing by said selected task (Column 13, lines 1-2) and a platform-specific event handler for said selected task, wherein said platform-specific event-dispatcher operates to place said platform-specific event in said platform-specific event-repository and invoke said platform-specific event-handler to initiate processing of said platform-specific event (Column 13, lines 6-13).

7. As per claims 2, 13, Moor teaches wherein said method further comprises: providing an event-repository (Column 5, lines 18-22) and an event-handler for said selected task (Column 4, lines 43-44); and placing said platform-specific event in said event-repository; invoking said event-handler to initiate processing of said platform-specific event; and processing, by said event-handler, said platform-specific event (Column 4, lines 64-67; Column 5, lines 2-7, lines 19-22; Column 6, lines 34-35).

8. As per claim 3, Moor in view of Nitz substantially teaches wherein said event-handler is implemented as an event-handler thread (Moor: Column 5, lines 32-39, lines 46-50), and wherein said selection is performed by an event-manager thread (Moor: Column 1, lines 50-60).

Moor in view of Nitz does not specifically teach wherein said event-repository is implemented as a first-in first-out queue.

However it would have been obvious to use a first-in-first-out queue to implement said event-repository since it is obvious to one having ordinary skill in the art of tasks and events queuing to use a first-in-first-out queue to store and sequence events so that they may be processed in an orderly manner.

9. As per claim 4, Moor teaches wherein said platform-specific event is manipulated to be associated with a Java compliant data structure (Column 1, lines 28-29).

10. As per claim 5, Moor teaches wherein said manipulating of said platform-specific event is performed by said virtual machine (Column 2, lines 45-47).

11. As per claims 6 and 22, Moor teaches wherein said selected task is a Java compliant MIDlet (Column 1, lines 28-29).

12. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moor et al., Patent No. 7,171,663 (hereafter Moor) in view of Nitz et al., Patent No.



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6,370,590 (hereafter Nitz) further in view of Gershman et al., Patent No. 6,199,099 (hereafter Gershman).

13. Gershman was cited in the previous office action.

14. As per claim 8, Moor in view of Nitz does not specifically teach a foreground task.

However, Gershman teaches a mobile system that has task running in the foreground for the purpose of interacting with a user for performing various tasks (Column 2, lines 14-17).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to combine the teachings of Moor in view of Nitz, where virtual machine may select which task is to receive its intended event, with the specifics of the task has to be a foreground task, as taught by Gershman, such that in the case that an event is for a foreground task, this task may be properly selected by the virtual machine to receive the event, because it allows the interaction with a user for performing various tasks.

15. As per claim 9, Moor teaches wherein said selected task is a Java compliant MIDlet (Moor: Column 1, lines 28-29). Moor in view of Nitz further in view of Gershman teaches wherein said selection comprises: selecting a foreground task when said selection is made (Gershman: Column 2, lines 14-17).

16. As per claim 10, Gershman teaches wherein said selecting said foreground tasks comprises: selecting a task that is displayed for the user (Fig 19, units 1900, 1997; Column 2, lines 56-57; Column 4, lines 35-37).

17. As per claim 11, Gershman teaches wherein said first platform includes a mobile device (Column 1, lines 20-25).

### ***Response to Arguments***

18. Applicant's arguments filed on 3/12/2010 have been fully considered but are not persuasive.

19. In the remark, the applicant argued that:

i) In response to the 112 rejection, the applicant does teach that the VM receives a plurality of platform-specific events SIMULTANEOUSLY, the proof of it is found in Fig 1B and Para 27.

ii) In response to the 112 rejection, the applicant does teach CONCURRENTLY determining which tasks should process the events.

iii) Moor teaches receiving events SIEARIALY instead of simultaneously.

iv) Moor teaches processing internal events instead of external events.

- v) Nitz is not related to event processing and therefore the combination of Moor and Nitz is improper.

The Examiner respectfully disagrees with the applicant. As to point:

- i) Fig 1B shows that events E1 to E4 comes into VM 112. However, this is insufficient to prove that E1 to E4 arrives at VM112 SIMULTANEOUSLY. Even if the figure, as drawn, is enough to show that they do arrive simultaneously, the figure does not show that the VM 112 actually RECEIVES those events SIMULTANEOUSLY. Para 27 does not even mention that the events are received by the VM simultaneously. It merely states that "the virtual machine 112 receives several platform specific events". It could very well mean that several events are received by a VM serially.

Therefore, it seems that the applicant considers the statement of VM receiving events or showing multiple events in figures inherently means that the VM receives events SIMULTANEOUSLY. If this is the case, the Examiner would like to point out that Moor also shows in Fig 1 that multiple external events coming into VM 140. Furthermore, Moor teaches that a VM may process multiple requests, here, Moor's requests corresponds to the applicant's events (Column 4, lines 15-16). Moreover, Moor actually states that the requests, or events, may be processed simultaneously (Column 6, lines 50-53).

- ii) The applicant seems to have been confused about the subject that the adjective "concurrent" describes. From the specification that the applicant

referred to (Para 24, 29, 34, 41-42), concurrent is used to describe concurrent tasks, NOT the determining. Yes, tasks processing the events may be executed concurrently, just like Moor's threads (corresponding to applicant's tasks) may process the requests (corresponding to applicant's events) may be executed concurrently (Column 6, lines 50-53). However, this does not mean that the determining is done concurrently, whatever that may mean.

Therefore, based on applicant's explanation of his invention using the specification, it seems that when the applicant claims concurrently determining what task should process an event, the applicant means that the tasks that are going to process these events are executing concurrently. This, again, is exactly taught by Moor, in Column 4, lines 15-16, lines 29-30, Column 6, lines 50-53, where he teaches that multiple threads (or tasks) may process the requests (or events) simultaneously (or concurrently).

iii) No where in Moor's teachings does it say that it is receiving the events serially. It is uncertain how the applicant has drawn this conclusion as the sections cited by the applicant does not prove this argument. Moor is rather silent as to how the events are received. There are times when Moor teaches that a VM receives an external event. However, this only means that a VM may receive an event, and certainly does not mean that in the event that there are multiple events, the VM has to receive them serially. A VM receiving an event does not preclude the possibility that a VM may receive multiple events simultaneously.

iv) Moor teaches that the VM may receive external events. These external events are then converted to internal events by the event processor to be received by the appropriate tasks that are supposed to process these events (Column 5, lines 5-12; Column 8, lines 5-23).

v) In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007).

In this case, Moor teaches a system that may broadcast external events to a group of tasks and it is up to the tasks themselves to determine if it should take up the event for processing. Moor lacks a centralized controller that makes the decision of what task should take up what event and assign the event to that task. The idea of a centralized controller that does get to make this decision is taught by Nitz. Nitz teaches, Column 7, lines 22-39, a centralized broker that decide which application (or task) should get which message (or event). Such a centralized system is often used in system designs for the purpose of having a precise control over how events should be handled. Therefore Nitz's centralized

control, when applied to Moor, would result in a system where instead of letting individual task respond to the incoming event, there would be a centralized broker that will distribute the event to the appropriate task—this broker would make the decision of who get what all by itself in order to ensure precise and better control on how the system responds to external events.

Moreover, Nitz himself states that this type of setup helps to provide communications amongst different types of application (Column 9, lines 5-16), a clear motivation to combine with Moor, where the client making the request (or external event) might be executing on a application different from that of the VM on the receiving side. This, further provides a motivation to combine the part of Nitz's teaching where the message (event) format may be modified into a second format that can be understood by the receiving application (Column 8, lines 10-25). Again, as taught by Nitz, this helps different applications to communicate despite their differences.

### ***Conclusion***

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MENG YAO ZHE whose telephone number is (571)272-6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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